Title (en)
DOUBLE BOND HYDROISOMERIZATION PROCESS

Title (de)
DOPPELBINDUNGS-HYDROISOMERISIERUNGSVERFAHREN

Title (fr)
PROCEDE D'HYDROISOMERISATION A DOUBLE LIAISON

Publication
EP 1868968 A4 20091202 (EN)

Application
EP 06749591 A 20060407

Priority
• US 2006013197 W 20060407
• US 10766705 A 20050415

Abstract (en)
[origin: US2006235255A1] A process and apparatus are disclosed for hydroisomerizing a mixed C4 olefin stream in a catalytic distillation column in order to increase the concentration of 2-butene and minimize the concentration of 1-butene, while concurrently minimizing the production of butanes. In one embodiment, carbon monoxide is introduced into the double bond hydroisomerization reactor along with hydrogen. In another embodiment, hydrogen, and optionally also carbon monoxide, is introduced at multiple locations along the double bond hydroisomerization reactor. The invention is particularly useful in preparing C4 feed streams for metathesis reactions.

IPC 8 full level
C07C 5/25 (2006.01); C07C 5/23 (2006.01)

CPC (source: EP KR US)
B01D 3/009 (2013.01 - EP KR US); B01J 8/0278 (2013.01 - EP KR US); C07C 5/2556 (2013.01 - EP KR US); C07C 6/04 (2013.01 - EP KR US); C07C 11/06 (2013.01 - EP KR US); B01J 2219/00006 (2013.01 - EP KR US); C07C 2521/04 (2013.01 - EP KR US); C07C 2523/04 (2013.01 - EP US); C07C 2523/42 (2013.01 - EP KR US); C07C 2523/44 (2013.01 - EP KR US); C07C 2523/50 (2013.01 - EP US); C07C 2523/52 (2013.01 - EP US); C07C 2523/755 (2013.01 - EP KR US); Y02P 20/10 (2015.11 - EP US); Y02P 20/52 (2015.11 - EP US)

C-Set (source: EP US)
1. C07C 5/2556 + C07C 11/08
2. C07C 6/04 + C07C 11/06

Citation (search report)
[X] US 2003036669 A1 20030220 - RYU J YONG [US], et al

Cited by
US8288601B2; US8299311B2; US8319000B2; US8319001B2

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US 2006235255 A1 20061019; AR 056312 A1 20071003; BR PI0609307 A2 20100309; CA 2604486 A1 20061026; CN 101500968 A 20090805; CN 101500968 B 20120418; EP 1868968 A2 20071226; EP 1868968 A4 20091202; JP 2008536848 A 20080911; JP 4860688 B2 20120125; KR 100937081 B1 20100115; KR 20080007367 A 20080118; MX 2007012669 A 20080219; MY 148080 A 20130228; NO 20075817 L 20080115; RU 2007142189 A 20090520; RU 2376272 C2 20091220; TW 200700372 A 20070101; WO 2006113190 A2 20061026; WO 2006113190 A3 20090416

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US 10766705 A 20050415; AR P060101460 A 20060412; BR PI0609307 A 20060407; CA 2604486 A 20060407; CN 200680019872 A 20060407; EP 06749591 A 20060407; JP 2008506554 A 20060407; KR 20077026419 A 20060407; MX 2007012669 A 20060407; MY PI20061564 A 20060406; NO 20075817 A 20071113; RU 2007142189 A 20060407; TW 95113050 A 20060412; US 2006013197 W 20060407